

UNMATCHED LEFT PARENTHESIS '(SAPOSIN'

The number of right parentheses in a query must be equal to the number of left parentheses.

=> s saposin (p) blood

L9 44 SAPOSIN (P) BLOOD

=> d ibib abs 1-44

L9 ANSWER 1 OF 44 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:941423 CAPLUS

TITLE: Immunoquantification of  $\alpha$ -galactosidase:

Evaluation for the diagnosis of fabry disease

AUTHOR(S): Fuller, Maria; Lovejoy, Melanie; Brooks, Doug A.;

Harkin, Miriam L.; Hopwood, John J.; Meikle, Peter J.

CORPORATE SOURCE: Lysosomal Diseases Research Unit, Department of Genetic Medicine, Women's and Children's Hospital, North Adelaide, Australia

SOURCE: Clinical Chemistry (Washington, DC, United States) (2004), 50(11), 1979-1985

CODEN: CLCHAU; ISSN: 0009-9147

PUBLISHER: American Association for Clinical Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Background: Fabry disease is an X-linked inborn error of glycosphingolipid

catabolism resulting from a deficiency of the lysosomal exoglycohydrolase,

$\alpha$ -galactosidase. Enzyme replacement therapy is currently available for Fabry disease, but early diagnosis before the onset of irreversible pathol. will be mandatory for successful treatment. Presymptomatic detection would be possible through the use of a newborn-screening program. We report on the use of sensitive assays for the measurement of  $\alpha$ -galactosidase protein and activity and for the protein **saposin C**, which are diagnostic markers for Fabry disease.

Methods: Two sensitive immunoassays for the measurement of  $\alpha$ -galactosidase activity and protein were used to determine the concns. of  $\alpha$ -galactosidase in dried filter-paper **blood spots** and plasma samples from control patients and patients with a lysosomal

storage

disorder (LSD). Results: Fabry hemizygous individuals were clearly identified from control populations by decreases in both  $\alpha$ -galactosidase activity and protein. Fabry heterozygotes generally fell between the hemizygotes and controls. Including the measurement of **saposin C** enabled differentiation between Fabry heterozygotes and controls. In **blood spots**, all Fabry individuals could be distinguished from control **blood spots** as well as from 16 other LSD patients. Conclusions: The determination of  $\alpha$ -galactosidase

activity or

protein in dried filter-paper **blood spots** could be used for the diagnosis of Fabry patients. With further validation, these assays could be used for the identification of Fabry patients in newborn-screening programs and may also be suitable for screening high-risk populations.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS

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=> s saposin

L8 1288 SAPOSIN

=> s (saposin (p) (blood or serum or urine or amniotic)  
UNMATCHED LEFT PARENTHESIS '(SAPOSIN'

The number of right parentheses in a query must be equal to the  
number of left parentheses.

=> s (saposin (p) (blood)

3 FILES SEARCHED...

L10 646 SAPOSIN (1W) (A OR C OR D)

=> s ((saposin) (1w) (a or c or d)) (p) blood

3 FILES SEARCHED...

L11 28 ((SAPOSIN) (1W) (A OR C OR D)) (P) BLOOD

=> d ibib abs 1-28

L11 ANSWER 1 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:941423 CAPLUS

TITLE: Immunoquantification of  $\alpha$ -galactosidase:

Evaluation for the diagnosis of fabry disease

AUTHOR(S): Fuller, Maria; Lovejoy, Melanie; Brooks, Doug A.;

Harkin, Miriam L.; Hopwood, John J.; Meikle, Peter J.

CORPORATE SOURCE: Lysosomal Diseases Research Unit, Department of  
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SOURCE: Clinical Chemistry (Washington, DC, United States)  
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$\alpha$ -galactosidase. Enzyme replacement therapy is currently available  
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pathol. will be mandatory for successful treatment. Presymptomatic  
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**saposin C** enabled differentiation between Fabry  
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With further validation, these assays could be used for the

identification

of Fabry patients in newborn-screening programs and may also be suitable  
for screening high-risk populations.

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L11 ANSWER 2 OF 28 CAPLUS COPYRIGHT 2004 ACS on STN

that this precursor cell in the digesting macrophage system also has an impaired metabolic catabolism for lipopigments (3). Immunohistochemical studies indicate that microglial reaction in NCL brain is limited to resident microglia without contribution by circulating monocytes (4). The granular osmiophilic deposit (GROD) type of NCL has now been established not only in infantile, but also in late-infantile, juvenile, and protracted-juvenile NCL (5). A European Tissue Registry established within the framework of a European Concerted Action on Neuronal Ceroid-Lipofuscinosis may form the basis for additional collaborative studies on NCL, including both biopsy and autopsy tissues.

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on STN  
 ACCESSION NUMBER: 90030178 EMBASE  
 DOCUMENT NUMBER: 1990030178  
 TITLE: Sphingolipid hydrolase activator proteins and their precursors.  
 AUTHOR: Sano A.; Hineno T.; Mizuno T.; Kondoh K.; Ueno S.; Kakimoto Y.; Inui K.  
 CORPORATE SOURCE: Department of Neuropsychiatry, Ehime University School of Medicine, Ehime 791-02, Japan  
 SOURCE: Biochemical and Biophysical Research Communications, (1989) 165/3 (1191-1197).  
 ISSN: 0006-291X CODEN: BBRCA  
 COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 025 Hematology  
 029 Clinical Biochemistry  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB Activator proteins for sphingolipid hydrolases (**saposins**) are small acidic, heat-stable glycoproteins that stimulate the hydrolysis of sphingolipids by lysosomal enzymes. The molecular mass of each stimulator is about 10 kDa, but glycosylated forms of higher mass exist too. The distribution and developmental changes in two **saposins** and their precursor proteins were studied with the aid of monospecific antibodies against **saposin-B** and **saposin-C**. They show a wide distribution in rat organs and forms intermediate between **saposin** and prosaposin (the precursor protein containing four different **saposin** units) could be seen. The amount of **saposin** and the degree of processing from prosaposin are quite different in different tissues. The **saposins** are the dominant forms in spleen, lung, liver, and kidney, while skeletal muscle, heart, and brain contain mainly precursor forms. In human **blood**, leukocytes contain mainly **saposin**, while plasma contains mainly precursor forms and platelets show many forms. Their subcellular distribution was studied using rat liver. The **saposins** of approximately 20 kDa are dominant in the light mitochondrial, mitochondrial, and microsomal fractions, following the distribution of the activity of a lysosomal marker enzyme. The nuclear fraction exhibits bands corresponding to non-glycosylated **saposin**. The soluble fraction contained much precursor forms. A developmental study of rat brain showed that the concentration of **saposin** precursors increased with age.

=> saposin (1w) (a or c or d)

developed by creating a null allele in embryonic stem cells through gene targeting to investigate the phenotypic diversity of prosaposin mutations and the involvement of this protein in lysosomal storage diseases, and for the development of therapeutic approaches. Mice homozygous mutants die at the age of 35-40 days and neurological disorders contribute to the early demise of the mutant mice. The male reproductive organs in homozygous mutants show several abnormalities, such as a decrease in testis size with reduced spermiogenesis and an involution of the prostate, seminal vesicles, and epididymis. In these animals, the **blood** levels of testosterone remain normal. In the prostate of homozygous mutants, only the basal epithelial cells appear to be present, while the secretory cells are absent. These findings suggest that prosaposin may be involved in the development and maintenance of the male reproductive organs, as well as, in cellular differentiation.

L11 ANSWER 22 OF 28 MEDLINE on STN  
 ACCESSION NUMBER: 90121224 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 2610686  
 TITLE: Sphingolipid hydrolase activator proteins and their precursors.  
 AUTHOR: Sano A; Hineno T; Mizuno T; Kondoh K; Ueno S; Kakimoto Y; Inui K  
 CORPORATE SOURCE: Department of Neuropsychiatry, Ehime University School of Medicine, Japan.  
 SOURCE: Biochemical and biophysical research communications, (1989 Dec 29) 165 (3) 1191-7.  
 Journal code: 0372516. ISSN: 0006-291X.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199002  
 ENTRY DATE: Entered STN: 19900328  
 Last Updated on STN: 19900328  
 Entered Medline: 19900213

AB Activator proteins for sphingolipid hydrolases (saposins) are small acidic, heat-stable glycoproteins that stimulate the hydrolysis of sphingolipids by lysosomal enzymes. The molecular mass of each stimulator is about 10 kDa, but glycosylated forms of higher mass exist too. The distribution and developmental changes in two saposins and their precursor proteins were studied with the aid of monospecific antibodies against saposin-B and **saposin-C**. They show a wide distribution in rat organs and forms intermediate between saposin and prosaposin (the precursor protein containing four different saposin units) could be seen. The amount of saposin and the degree of processing from prosaposin are quite different in different tissues. The saposins are the dominant forms in spleen, lung, liver, and kidney, while skeletal muscle, heart, and brain contain mainly precursor forms. In human **blood**, leukocytes contain mainly saposin, while plasma contains mainly precursor forms and platelets show many forms. Their subcellular distribution was studied using rat liver. The saposins of approximately

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on STN

ACCESSION NUMBER: 2004460372 EMBASE  
TITLE: Immunoquantification of  $\alpha$ -galactosidase: Evaluation for the diagnosis of fabry disease.  
AUTHOR: Fuller M.; Lovejoy M.; Brooks D.A.; Harkin M.L.; Hopwood J.J.; Meikle P.J.  
CORPORATE SOURCE: M. Fuller, Lysosomal Diseases Research Unit, Department of Genetic Medicine, Women's and Children's Hospital, 72 King William Rd., North Adelaide, SA 5006, Australia. maria.fuller@adelaide.edu.au  
SOURCE: Clinical Chemistry, (2004) 50/11 (1979-1985).  
Refs: 19  
ISSN: 0009-9147 CODEN: CLCHAU  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 007 Pediatrics and Pediatric Surgery  
029 Clinical Biochemistry  
LANGUAGE: English  
SUMMARY LANGUAGE: English

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	U	1	Document ID	Issue Dat	Pages	Title	Current OR	Current XN	Retrieval	Inventor	S	C	T	US	
1			US 6759189 B1	20040706	28	Early detection of lysosomal storage disorder	435/4	435/7.1; 435/7.4;		Meikle; Peter J et al.					US
2			US 6693077 B1	20040217	244	Keratinocyte growth factor-2	514/12	514/2; 530/399		Ruben; Steven M. et al.					US
3			US 6376236 B1	20020423	141	Recombinant alphavirus particles	435/320.1			Dubensky, Jr.; Thomas W. et al.					US
4			US 6342372 B1	20020129	144	Eukaryotic layered vector initiation svste	435/69.1	435/455; 536/23.2;		Dubensky, Jr.; Thomas W. et al.					US
5			US 6303118 B1	20011016	26	Human chitinase, its recombinant production.	424/94.61	435/209; 536/23.2		Aerts; Johannes Maria Franciscus G					US
6			US 6057142 A	20000502	26	Human chitinase, its recombinant production.	435/209	435/252.3; 435/320.1;		Aerts; Johannes Maria Franciscus G					US
7			US 6015694 A	20000118	140	Method for stimulating an immune response util	435/69.3	424/199.1; 424/204.1;		Dubensky, Jr.; Thomas W. et al.					US
8			US 6015686 A	20000118	141	Eukaryotic layered vector initiation svste	435/69.1	435/320.1; 435/325;		Dubensky, Jr.; Thomas W. et al.					US
9			US 5928928 A	19990727	25	Human chitinase, its recombinant production.	435/201	435/183; 530/350;		Aerts; Johannes Maria Franciscus G					US
10			US 5843723 A	19981201	142	Alphavirus vector constructs	435/69.3	435/235.1; 435/320.1;		Dubensky, Jr.; Thomas W. et al.					US
11			US 5814482 A	19980929	145	Eukaryotic layered vector initiation svste	435/69.3	435/320.1; 536/23.1;		Dubensky, Jr.; Thomas W. et al.					US
12			US 5789245 A	19980804	140	Alphavirus structural protein expression cass	435/320.1	435/325; 435/69.1;		Dubensky, Jr.; Thomas W. et al.					US